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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/720,571	11/24/2003	Marc R. Amling	02580- P0056C	5711
24126	7590	12/05/2005	EXAMINER	
ST. ONGE STEWARD JOHNSTON & REENS, LLC			LEUBECKER, JOHN P	
986 BEDFORD STREET			ART UNIT	
STAMFORD, CT 06905-5619			PAPER NUMBER	

3739

DATE MAILED: 12/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/720,571

Applicant(s)

AMLING ET AL.

Examiner

John P. Leubecker

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>7/9/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

***Specification***

1. The abstract of the disclosure is objected to because it describes nothing more than the prior art. Correction is required. See MPEP § 608.01(b).

2. The disclosure is objected to because of the following informalities: the status of the parent application in the first paragraph of the specification needs to be updated.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 8, 9, 11, 12, 15, 16, 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As to claim 8, this claims improperly attempts to set forth a Markush group.

As to claim 9, terms “light source” and “cable” lack antecedent basis.

As to claim 11, phrase “receptive of light from the camera” is indefinite. Furthermore, it does not appear from the specification that the endoscope receives anything from the camera, especially “light”.

As to claims 12, 15 and 16, “light source” lacks antecedent basis.

As to claim 20, referring to “the at least one channel” when only “a channel” was previously claimed makes the claim indefinite.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-5, 8 and 10-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Monroe et al. (U.S. Pat. 5,311,859).

Monroe et al. discloses a camera head (22) for generating image data, an endoscope (10), a camera control unit (col.4, lines 31-38), a cable (30) including a single protective jacket (sheath of cable 30) enclosing at least one channel (e.g., space encompassing a plurality of electrical conductors from the camera head, Fig.2) and a light source guide (col.3, lines 60-62). Since the electrical conductors are capable of transmitting any type of signals, whether multiplexed or not, or bidirectional or not, the electrical conductors of Monroe et al. meet the limitations as broadly as claimed. It is noted that the instant claims do not require any structure (e.g., multiplexer) that physically directs multiple signals down the same physical wire (or single pair of wires) but only a “channel” that is capable of accommodating such. Furthermore, the claimed “channel” is not required to be a single wire (or single pair of wires). Thus, even if a multiplexer was claimed, multiplexing down a “channel” which could incorporate multiple pairs of wires, would not solely limit the claim to structure requiring multiple signals transmitted down the same physical wire (or pair of wires), but would include each signal having its own physical wire (or pair of wires).

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Thus, taking all of the electrical conductors of Monroe et al. as being incorporated into a “channel”, the signals are multiplexed so as to share the same channel. The camera head and camera control unit both generate signals that are transmitted through the channel. Note that light from the light source (36) is transmitted through the control unit (which resides in the module 32) and camera head (22) (note Fig.2). The camera head (22) includes a coupling (62) and a cable (40) for connecting the coupling and the endoscope.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe et al. in view of “Interface Circuits for TIA/EIA-644 (LVDS) Design Notes” (hereinafter, “LVDS Design Notes”).

Monroe et al. disclose what appears to be analog transmission of data and thus fails to disclose that a LVDS protocol. The LVDS Design Notes teaches that LVDS signaling is a known method of transferring data at high speed with low power transmission and increased signal-to-noise ratio (page 1, first paragraph under “General Information” and page 9, first paragraph under “Radiated Emissions and Susceptibility”). It would have been obvious to one of ordinary skill in the art to have used a known signaling method (LDVS) in a device (Monroe et

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al.) where such method would be an improvement over the current analog (or digital) transmission.

9. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Monroe et al. in view of Hattori (U.S. Pat. 4,356,534).

Monroe et al. fail to disclose a light deflector that severs the light path one the cable is disconnected from the camera control unit. Hattori teaches the severing of the light path with a light deflector (84, Fig.3) when the cable is disconnected from the light control unit (col.3, lines 39-48) to prevent the leakage of light and potential damage to a user's eyes (col.1, lines 17-24). It would have been obvious to the skilled artisan to have provided a light deflector in the control unit/light source of Monroe et al. for the desirable reason taught by Hattori.

#### ***Remarks***

10. Due to the overly broad nature of the claims (it would appear that most endoscopes that include a camera and a control unit would read on most of the claims), only rejections using a single base reference (i.e., Monroe et al.) have been made. Many references of record meet the limitations of most of the claims. Monroe et al. was only used because it included certain other features that met certain other claim limitations (e.g., claims 12 and 13). Applicant is requested to consider all prior art of record when responding to this Office Action and particularly claim what Applicant believes is the invention so that a more exact search can be done.

#### ***Conclusion***

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11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

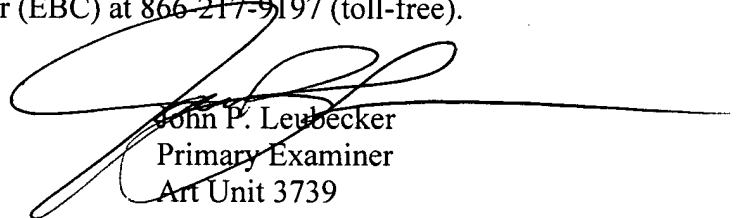
The prior art references listed on the PTO-892 were cited in the parent case.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John P. Leubecker whose telephone number is (571) 272-4769.

The examiner can normally be reached on Monday through Friday, 6:00 AM to 2:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Linda C.M. Dvorak can be reached on (571) 272-4764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



John P. Leubecker  
Primary Examiner  
Art Unit 3739

jpl